

CHAPTER 4

Wireless LAN Setup

4.1 Introduction

Over recent years, the market for wireless communications has enjoyed tremendous growth. Wireless technology now reaches or is capable of reaching virtually every location on the face of the earth. Hundreds of millions of people exchange information every day using wireless communication products. No longer bound by the harnesses of wired networks, people will be able to access and share information on a global scale nearly anywhere they venture. Therefore, the DrayTek company endeavors to develop the wireless communication products, named Vigor2900G and Vigor2900Gi routers, to provide great wireless access capability for users.

The Vigor2900Gi and Vigor2900G are equipped with a wireless LAN interface compliant with the IEEE 802.11g protocol supporting data rate of 54Mbps. The wireless LAN capability enables high mobility of several users so that they can simultaneously access all LAN facilities just like on a wired LAN as well as Internet and WAN access.

In this chapter, we explain the capabilities of the wireless LAN and its associated web configurations. Use the following setup links on the Setup Main Menu to configure the wireless LAN function.

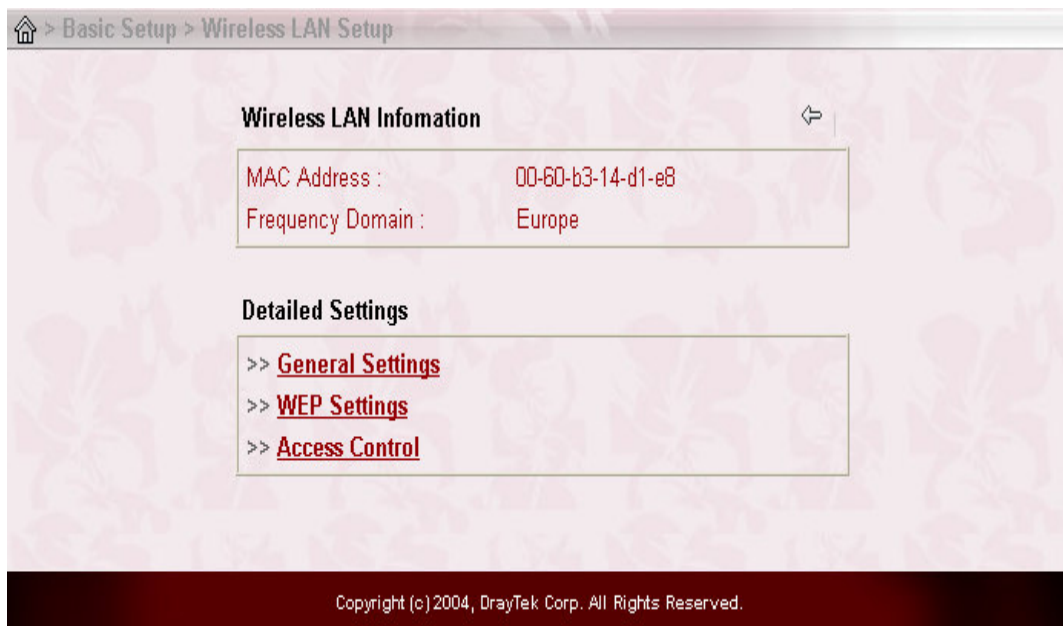
Basic Setup > Wireless LAN Setup



4.2 Configuration

(Vigor2900Gi and Vigor2900G only)

After clicking the “Wireless LAN Setup”, you will see the following web page.



This web page will show the wireless LAN information including *MAC address* and *Frequency domain* and provide the **Detailed Setting** for advanced setting. For example, in this figure, the *Frequency Domain* is set as Europe and the *MAC address* is set as 00-60-b3-14-d1-e8. The **Detailed Settings** consists of **General Settings**, **WEP Settings**, and **Access Control**.

By clicking the **General Settings**, a new web page will appear so that you could

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configure the *SSID* and the *wireless channel*. Please refer to the following figure for more information.

The screenshot shows a web-based configuration interface for a wireless LAN. The breadcrumb navigation at the top reads: > Basic Setup > Wireless LAN Setup > General Settings. The main window is titled "General Setting (IEEE 802.11)" and contains the following elements:

- A checkbox labeled "Enable Wireless LAN" which is checked.
- A "Scheduler (1-15)" section with four empty input boxes.
- An "SSID :" label followed by a text box containing the word "default".
- A "Channel :" label followed by a dropdown menu showing "Channel 6, 2437MHz".
- A checkbox labeled "Hide SSID" which is unchecked.
- Below the "Hide SSID" checkbox, there are three explanatory lines:
 - SSID :** wireless LAN Service Set ID.
 - Hide SSID :** the scanning tool can't read the SSID when sniffing radio.
 - Channel :** Select the frequency channel of wireless LAN.
- At the bottom of the window are "Cancel" and "OK" buttons.

At the very bottom of the page, a copyright notice reads: Copyright (c) 2004, DrayTek Corp. All Rights Reserved.

Enable Wireless LAN: Click it to enable the wireless access activity for the wireless device.

Scheduler: You can set the wireless device to work at some time interval only. Four time internals are available for you to choose. The default setting is always active without any time limitation. The schedule can be specified through **Advanced Setup > Call Schedule Setup**.

SSID: SSID stands for Service Set Identification. You should set the SSID to be one that the wireless card in your notebook/desktop allows the client hosts to access the network via the wireless LAN interface. By default, the SSID is *default*.

Channel: Select an adequate wireless channel for Vigor2900Gi or Vigor2900G router. The default channel is 6.

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Hide SSID: This term is used to increase the security level. Check it to hide SSID information against the wireless clients that are sniffing radio. By default, this option is inactive.

4.3 Configuring the WEP Security

To improve the security and privacy of your wireless data packets, the WEP encryption feature can be employed, where WEP stands for Wireless Equivalent Privacy. The WEP facility encrypts each frame transmitted from the radio using one of the given keys. By clicking the **WEP Settings** in the **Detailed Settings** group, a new web page will appear so that you could configure the WEP and specify the related keys.

Web Encryption: It can be enabled by selecting 64 bits or 128 bits from pull

WEP Settings

WEP Encryption : WEP 128 Bit

Use WEP Key

☒ Key 1 :

☐ Key 2 :

☐ Key 3 :

☐ Key 4 :

For 64 bit WEP key
Type 5 ASCII character or 10 Hexadecimal digits leading by "0x", for example "AB312" or "0x4142333132".

For 128 bit WEP key
Type 13 ASCII character or 26 Hexadecimal digits leading by "0x", for example "0123456789abc" or "0x30313233343536373839414243".

Cancel OK

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down menu. Three options (*Disable*, *WEP 64 bits*, and *WEP 128 bits*) are available.

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Disable: Select it to turn off the WEP encryption mechanism.

WEP 64 Bit: Selecting this option will affect the key length. That is, you should enter either 5 ASCII characters or 10 hexadecimal digitals leading by **0x** can be entered. For example **ABCDE** or **0x4142434445**.

WEP 128 Bit: If you choose this option, you should enter 13 ASCII characters or 26 hexadecimal digits leading by **0x** for key. For example, **ABCDEFGHJKLM** or **0x4142434445464748494A4B4C4D**.

Further, four WEP keys are allowed to set but only one key can be selected. As described above, these keys can be entered in ASCII or Hexadecimal form.

4.4 Configuring the Access Control

For additional security of wireless access, the **Access Control** facility allows you to restrict the network access right by controlling the wireless LAN MAC address of client. Only the valid MAC address which has been configured can access the wireless LAN interface. By clicking the **Access Control** in the **Detailed Settings** group, a new web page will appear, as depicted below, so that you could edit the clients' MAC addresses to control their access rights.

Enable Access Control: To check the **Enable Access Control** to enable the MAC Address access control feature.

MAC Address: Display all MAC addresses that are edited before. Four buttons (Add, Remove, Edit, and Cancel) are provided to edit a MAC address.

ADD: Add a new MAC address into the list.

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> Basic Setup > Wireless LAN Setup > Access Control

Access Control

☐ Enable Access Control

Index	MAC Address
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MAC Address : : : : : :

Note :
Add or remove the wireless user's MAC address to accept or deny the access to the network.

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Remove: Delete the selected MAC address in the list.

Edit: Edit the selected MAC address in the list.

Cancel: Give up the access control set up.

Clean All: Clean all entries in the MAC address list.

OK: Click it to save the access control list.